



MARINE AVIATION

Unmanned Aircraft Systems in the Connected Battlespace



Purpose

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- **Purpose:**
 - **Discuss the role UAS will play in “The Connected Battlespace”**
- **Topics:**
 - **UAS Family of Systems**
 - **USMC Vision**
 - **Group 4 UAS Characteristics**
 - **Industry Teaming**

UAS Family of Systems

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The UAS Family of Systems (FoS) provides each level of the Marine Air-Ground Task Force (MAGTF) and its subordinate units a tactical, organic, interoperable, integrated and tailored Battlespace Awareness and Force Application capability while enabling enhanced Command, Control, and Communications throughout the range of military operations.

- Fundamentals
 - **Detachable** -Expeditionary Elements “Right -Sized” for Embedded Direct Support
 - **Tailored** - Phase I and II Intelligence embedded with UAS team (Group 3-4)
 - **“Reconfigurable Multi-mission”** - Capable of rapid integration of latest Payload technology
 - **Emerging** - Utilizing Long Endurance to break into new “Dull, Dirty and Dangerous” mission capabilities

USMC UAS VISION

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- **UAS will capitalize on emerging technologies unlocking greater opportunities for combat effectiveness**
 - **Plug & Play Payloads**
 - **All UAS nodes in the Global Information Grid (Networked)**
 - **Electronic Warfare**
 - **Operating in Non-Permissive Environment-Denied Access**
 - **Long-endurance**
 - **Multi-sensor, multi-spectral, multi-mission**
 - **Increased automation (1 operator/5 missions vice 5 operators/1mission)**

USMC Group 4 UAS Characteristics

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- 14-30 hours endurance
- 350-450 nm Operational Radius
- 200+ Kts
- All Weather
- BLOS, but not necessarily tied to SATCOM
- Manned aviation reliability and maintenance
- Multi-Spectral – Multi-Sensor
 - EO/IR, SIGINT, SAR, FOPEN, WAAS
- EW (ES&EA)
- Multi-channelled communications and data (network enabler – low orbiting satellite) – embedded chat functions
- Multiple High Bandwidth downlinks (channels), encrypted



Industry Teaming

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- Integrate the “Best in Industry”
 - Platforms
 - Payloads
 - Ground Control Systems
 - Network Architecture
- Drive standards and interoperability
 - Help define USIPs
 - Demand PnP Size, Weight, and Power (SWaP) interfaces
 - Enable future technologies

QUESTIONS

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